

AMENDMENTS TO THE CLAIMS

Please AMEND claims 1, 2, 5, 8-11, 16-18, 21-25, 31-33, 36 and 37, and CANCEL claims 3, 4, 6, 7, 12-15, 19, 20, 26-30, 34, 35 and 38 without prejudice or disclaimer, in accordance with the following:

1. (Currently Amended) A method for managing an optical recording medium having at least one temporary defect management area (TDMA), at least one defect management area (DMA) and at least one spare area ~~in a data area~~, said method comprising:

~~replacing data written in a defective area by writing the data written in the~~ a defective area to the at least one spare area as replacement data if the defective area within the data area of the optical recording medium is detected; and

writing defect management information in the at least one temporary defect management area for access to the data written in the spare area, wherein said defect management information ~~for access to the data written in the spare area is identified by at least one navigation pointer~~ includes location information indicating a next available address of the at least one spare area;
and

writing the defect management information written in the at least one temporary defect management area to the at least one defect management area when the optical recording medium is to be finalized.

2. (Currently Amended) The method according to claim 1, wherein ~~in the writing step~~, the defect management information is written as temporary defect list information and

~~temporary disc structure information in the at least one temporary defect management area, wherein the location information is written in the temporary disc structure information, and the temporary defect list information includes a defect entry corresponding to the defective area and the method further comprises managing the defect list information, wherein the defect list information includes navigation pointer information including defect entries corresponding to actual written replacement data, and writing location information of the next available spare area for successive replacement writing.~~

3-4. (Cancelled)

5. (Currently Amended) The method according to claim 2, wherein the ~~defect list information is~~ temporary defect list information has with a recording size smaller than four clusters.

6-7. (Canceled)

8. (Currently Amended) The method according to claim 2, wherein a recording size of the temporary defect list information to be written is varied to a recording size greater than one cluster when ~~the~~ a number of defect entries exceeds one cluster of recording size.

9. (Currently Amended) The method according to claim 8, wherein the recording size of the temporary defect list information to be written is varied to a recording size greater than one cluster but smaller than four clusters.

10. (Currently Amended) The method according to claim 2, wherein the optical recording medium is a single layer Blu-ray disc of writable once type (BD-WO) having an inner spare area and an outer spare area assigned thereto, and the location information includes two pointers, the two pointers indicating next available addresses of the inner spare area and outer spare area, respectively. ~~defect list information includes writing location information of the inner spare area available for successive replacement writing of replacement data, and writing location information of the outer spare area available for successive replacement writing of replacement data.~~

11. (Currently Amended) The method according to claim 2, wherein the optical recording medium is a dual layer Blu-ray disc of writable once type having an inner spare area and an outer spare area assigned to each of a first layer and a second layer respectively, and the location information includes four pointers, the four pointers indicating next available addresses of the inner spare area and outer spare area within the first layer and the second layer, respectively. ~~defect list information includes writing location information of the available inner spare areas of the first and second layers for successive replacement writing of replacement data, and writing location information of the available outer spare areas of the first and second layers for successive replacement writing of replacement data.~~

12-15. (Cancelled)

16. (Currently Amended) The method according to claim 2 ~~15~~, wherein the temporary defect list information includes a defect list terminator for indicating a termination of writing of the defect entry entries.

17. (Currently Amended) The method according to claim 2 ~~15~~, wherein the location information points to a first sector of a next available cluster of the at least one spare area ~~writing location information is writing location information corresponding to a first sector of a first cluster of the spare area available for successive replacement writing of new replacement data.~~

18. (Currently Amended) The method as claimed in claim 2 ~~15~~, wherein the temporary disc definition ~~structure~~ information includes physical sector number information corresponding to a ~~writing~~ location of the temporary defect list information.

19-20. (Cancelled)

21. (Currently Amended) A recording ~~medium~~ medium, comprising:
a at least one spare area within a data area, said spare area configured to store replacement data;

a temporary defect management area ~~for~~ configured to store defect management information to manage ~~managing~~ a defective area ~~within the data area~~ when the recording medium is under a non-finalized state; and

a defect management area configured to store the defect management information to manage the defective area when the recording medium is under a finalized state;

~~a portion of said at least one spare area capable of storing replacement data;~~

wherein data ~~written~~ in the defective area is written in ~~replaced by writing the data written in the defective area to the portion of said at least one spare area as the replacement data; data, and said defect management information includes location information indicating a next available address of the spare area, and the defect management information written in the temporary defect management area is written to the~~ defect management area when the recording medium is to be finalized.

~~defect management information in the at least one temporary defect management area for access to the data written in the portion of the at least one spare area, wherein said defect management information for access to the data written in the spare area is identified by at least one navigation pointer.~~

22. (Currently Amended) The recording medium according to claim 21, wherein the recording medium is a single layer Blu-ray disc of writable once type (BD-WO) having an inner spare area and an outer spare area assigned thereto, and the location information includes two pointers, the two pointers indicating next available address of the inner spare area and outer spare area, respectively. ~~defect management information includes writing location information of the~~

~~inner spare area available for successive replacement writing of replacement data, and writing location information of the outer spare area available for successive replacement writing of replacement data.~~

23. (Currently Amended) The recording medium according to claim 21, wherein the recording medium is a dual layer Blu-ray disc of writable once type (BD-WO) having an inner spare area and an outer spare area assigned to each of a first layer and a second layer respectively, and the location information includes four pointers, the four pointers indicating next available addresses of the inner spare area and outer spare area within the first layer and the second layer, respectively. ~~defect management information includes writing location information of the available inner spare areas of the first and second layers for successive replacement writing of replacement data, and writing location information of the available outer spare areas of the first and second layers for successive replacement writing of replacement data.~~

24. (Currently Amended) The recording medium according to claim 21, wherein the defect management information is written as temporary defect list information and temporary disc structure information in the ~~at least one~~ temporary defect management area,

wherein the location information is written in the temporary disc structure information and the temporary defect list information includes a defect entry corresponding to the defective area. ~~and the defect list information includes navigation pointer information including defect~~

~~entries corresponding to actual written replacement data, and writing location information of the next available spare area for successive replacement writing.~~

25. (Original) The recording medium according to claim 24, wherein the recording medium is a Blu-ray disc of writable once type (BD-WO).

26-30. (Cancelled)

31. (Currently Amended) The recording medium according to claim 24 ~~30~~, wherein the temporary defect list information includes a defect list terminator for indicating a termination of writing of the defect entry ~~entries~~.

32. (Currently Amended) The recording medium according to claim 24 ~~30~~, wherein the location information points to a first sector of a next available cluster of the spare area. ~~wherein the writing location information is writing location information corresponding to a first sector of a first cluster of the spare area available for successive replacement writing of new replacement data.~~

33. (Currently Amended) The recording medium according to claim 24 ~~30~~, wherein the temporary ~~disc definition~~-structure information includes physical sector number information corresponding to a ~~writing~~ location of the temporary defect list information.

34-35. (Cancelled)

36. (Currently Amended) An apparatus for managing an optical recording medium having at least one temporary defect management area (TDMA), at least one defect management area (DMA), and at least one spare area ~~in a data area~~, said apparatus comprising:

a pickup configured to read data from the optical recording medium and write data on the optical recording medium; and

a controller, operatively coupled to the pickup, configured to control the pickup to write means for replacing data written in a defective area by writing the data written in the a defective area to the at least one spare area as replacement data if the defective area within the a data area of the optical recording medium is detected; and control the pickup to write means for writing defect management information in the at least one temporary defect management area for access to the data written in the spare area; and control the pickup to write the defect management information written in the at least one temporary defect management area to the at least one defect management area when the optical recording medium is to be finalized,

wherein said defect management information ~~for access to the data written in the spare area is identified by at least one navigation pointer~~ includes location information indicating a next available address of the at least one spare area.

37. (Currently Amended) The apparatus according to claim 36, wherein the controller controls the pickup to write the defect management information-is written as temporary defect list information and temporary disc structure information in the at least one temporary defect

management area, wherein the location information is written in the temporary disc structure information, and the temporary defect list information includes a defect entry corresponding to the defective area. ~~by said means for writing defect management information, and the defect list information includes navigation pointer information including defect entries corresponding to actual written replacement data, and writing location information of the next available spare area for successive replacement writing.~~

38. (Cancelled)